

INFORMATION DISCLOSURE STATEMENT BY APPLICANT Form PTO-1449 (Modified) (Use several sheets if necessary)				COMPLETE IF KNOWN	
 JAN 29 2004		Application Number	09/978,134		
		Confirmation Number	4196		
		Filing Date	10/15/2001		
		First Named Inventor	Bradford Evan Gliner		
		Group Art Unit	3762		
		Examiner Name	Roderick D. Bradford		
Sheet	1	of	1	Attorney Docket No.	33734-8021US

U.S. PATENT DOCUMENTS

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Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume/issue number(s), publisher, city and/or country where published.	T

EXAMINER <i>R. Borchard</i>	DATE CONSIDERED 6/15/04
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<p>SEARCHED SERIALIZED OIPC MAR 22 2002 (use as many sheets as necessary)</p>			COMPLETE IF KNOWN	
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*EXAMINER INITIALS	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		NUMBER	Kind Code (if known)			
RL	AA	5,713,922		King	02/03/98	
	AB	5,215,086		Terry, Jr. et al.	06/01/93	
	AC	5,716,377		Rise et al.	02/10/98	
	AD	5,975,085		Rise	11/02/99	
	AE	6,066,163		John	05/23/00	
	AF	3,650,276		Burghelle et al	03/21/72	
	AG	4,140,133		Kastrubin et al.	02/20/79	
	AH	4,542,752		DeHaan et al.	09/24/85	
	AI	4,607,639		Tanagho et al.	08/26/86	
	AJ	4,646,744		Capel	03/03/87	
	AK	4,844,075		Liss et al.	07/04/89	
	AL	4,865,048		Eckerson	09/12/89	
	AM	5,002,053		Garcia-Rill et al.	03/26/91	
	AN	5,031,618		Mullett	07/16/91	
	AO	5,092,835		Schurig et al.	03/03/92	
	AP	5,143,089		Alt	09/01/92	
	AQ	5,169,384		Bosniak et al.	12/08/92	
	AR	5,304,206		Baker, Jr. et al.	04/19/84	
	AS	5,358,513		Powell, III et al.	10/25/94	
	AT	5,370,672		Fowler et al.	12/06/94	
	AU	5,417,719		Hull et al.	05/23/95	
	AV	5,537,512		Hsia et al.	07/16/96	
	AW	5,540,736		Haimovish et al.	07/30/96	
	AX	5,411,540		Edell et al.	05/02/95	
	AY	5,549,655		Erickson	08/27/96	
	AZ	5,885,976		Sandyk	03/23/99	
	BA	5,886,769		Zolten	03/23/99	
	BB	5,904,916		Hirsch	05/18/99	
	BC	5,938,688		Schiff	08/17/99	

MAR 27 2002
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Attorney Docket No.		337348021US				
2 of 6						
BD	5,591,216	Testerman et al.	01/07/97			
BE	5,593,432	Crowther et al.	01/14/97			
BF	5,628,317	Starkebaum et al.	05/13/97			
BG	5,683,422	Rise	11/04/97			
BH	5,702,429	King	12/30/97			
BI	5,711,316	Elsberry et al.	01/27/98			
BJ	5,713,923	Ward et al.	02/03/98			
BK	5,735,814	Elsberry et al.	04/07/98			
BL	5,752,979	Benabid	05/19/98			
BM	5,782,798	Rise	07/21/98			
BN	5,792,186	Rise	08/11/98			
BO	5,797,970	Pouvreau	08/25/98			
BP	5,814,014	Elsberry et al.	09/29/98			
BQ	5,814,092	King	09/29/98			
BR	5,824,021	Rise	10/20/98			
BS	5,832,932	Elsberry et al.	11/10/98			
BT	5,833,709	Rise et al.	11/10/98			
BU	5,843,148	Gijsbers et al.	12/01/98			
BV	5,843,150	Dreessen et al.	12/01/98			
BW	5,893,883	Torgerson et al.	04/13/99			
BX	5,913,882	King	06/22/99			
BY	5,925,070	King et al.	07/20/99			
BZ	5,941,906	Barreras, St. et al.	08/24/99			
CA	5,964,794	Bolz et al.	10/12/99			
CB	5,978,702	Ward et al.	11/02/99			
CC	6,011,996	Giclen et al.	01/04/00			
CD	6,018,682	Rise	01/25/00			
CE	6,021,352	Christopherson et al.	02/01/00			
CF	6,026,326	Bardy	02/15/00			
CG	6,042,579	Elsberry et al.	03/28/00			
CI	6,057,847	Sever, Jr.	05/02/00			

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L.6	CJ	6,058,331	King	05/02/00	
	CK	6,055,456	Gerber	04/25/00	
	CL	6,060,048	Cherksey	05/09/00	
	CM	6,104,956	Naritoku et al.	08/15/00	
	CN	6,104,960	Duysens et al.	08/15/00	
	CO	6,122,548	Starkebaum et al.	09/19/00	
	CP	6,126,657	Edwards et al.	10/03/00	
	CQ	6,128,537	Rise	10/03/00	
	CR	6,152,143	Edwards	11/28/00	
	CS	6,161,044	Silverstone	12/12/00	
	CT	09/802,808	Firlik	03/08/01	
	CU	60/325,872	Sheffield	09/28/01	
	CV	60/325,978	Gliner	09/28/01	
~	CW	10/072,700	Firlik	02/07/02	
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					MAR 27 2002

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SM	CX	PCT	WO 98/06342	Neotonus, Inc.	02/19/98	

OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS

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L-D.	CY	SIEBNER et al., "Lasting cortical activation after repetitive TMS of the motor cortex," NEUROLOGY 54, pp. 956-963 (February 2000)	✓
L.A.	CZ	ZIEMANN et al., "Modulation of Plasticity in Human Motor Cortex after Forearm Ischemic Nerve Block," The Journal of Neuroscience, Vol. 18, No. 3, pp. 1115-1123 (February 1998)	✓

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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				<p>Application Number 09/978,134</p> <p>Confirmation Number 4196</p> <p>Filing Date 10/15/01</p> <p>First Named Inventor Bradford Evan Gliner</p> <p>Group Art Unit 3762</p> <p>Examiner Name Unknown</p>
Sheet 4 of 6				Attorney Docket No. 337348021US
P.B.	DA	OLIVERI et al., "Paired transcranial magnetic stimulation protocols reveal a pattern of inhibition and facilitation in the human parietal cortex," The Journal of Physiology, 529.2, pp. 461-468 (2000)		
	DB	CLASSEN, et al., "Rapid Plasticity of Human Cortical Movement Representation Induced by Practice," The Journal of Neurophysiology, Vol. 79, No. 2, pp. 1117-1123 (February 1998)		
	DC	LEVY et al., "Functional MRI Evidence of Cortical Reorganization in Upper-Limb Stroke Hemiplegia Treated with Constraint-Induced Movement Therapy," American Journal of Physical Medicine & Rehabilitation, Vol. 80, No. 1, pp. 4-7 (2001)		
	DD	GORDON et al., "Parameters for direct cortical electrical stimulation in the human: histopathologic confirmation," Electroencephalography and clinical Neurophysiology, Vol. 75, pp. 371-377 (1990)		
	DE	CRAMER, S.C. and BASTINGS, E.P., "Mapping clinically relevant plasticity after stroke," Neuropharmacology Vol. 19, No. 5, pp. 842-851 (April 2000)		
	DF	HODGE, JR., C.J. and BOAKYE, M., "Biological Plasticity: The Future of Science in Neurosurgery," Neurosurgery, Vol. 48, No. 1 (January 2001)		
	DG	NITSCHE, M.A. and PAULUS, W., "Excitability changes induced in the human motor cortex by weak transcranial direct current stimulation," The Journal of Physiology, Vol. 527.3, pp. 663-639 (2000)		
	DH	ROSSI et al., "Effects of Repetitive Transcranial Magnetic Stimulation on Movement-related Cortical Activity in Humans," Cerebral Cortex, Vol. 10, No. 8, pp. 802-808 (August 2000)		
	DI	CINCOTTA et al., "Reorganization of the motor cortex in a patient with congenital hemiparesis and mirror movements," Neurology, Vol. 55, pp. 129-131 (2000)		
	DJ	STEFAN et al., "Introduction of plasticity in the human motor cortex by paired associative stimulation," Brain, Vol. 123, No. 3, pp. 575-584 (March 2000)		
	DK	FEYS et al., "Value of somatosensory and motor evoked potentials in predicting arm recovery after a stroke," (October 1999)		
	DL	TURTON, A. and LEMON, R.N., "The contribution of fast corticospinal input to the voluntary activation of proximal muscles in normal subjects and in stroke patients," Exp. Brain Res., Vol. 129, pp. 559-572 (1999)		
	DM	MARTINEZ et al., "Motor hand recovery after stroke Prognostic yield of early transcranial magnetic stimulation," Electromyography. Clin. Neurophysiology, Vol. 39, pp. 405-410 (1999)		
	DN	SAITOU et al., "Cerebral Blood Volume and Oxygenation Among Poststroke Hemiplegic Patients: Effects of 13 Rehabilitation Tasks Measured by Near-Infrared Spectroscopy," Arch. Phys. Med. Rehabil., Vol. 81 pp. 1348-1356 (October 2000)		
	DO	MALENKA, R.C. and NICOLL, R.A., "Long-Term Potentiation - A Decade of Progress?," Neuroscience, Vol. 285, No. 5435, Issue of 17 September 1999, pp. 1870-1874		
↓	DP	SANES, J.N. and DONOGHUE, J.P., "Plasticity and Primary Motor Cortex," Annu. Rev. Neurosci. 23:393-415 (2000)		

<p style="text-align: center;">O I P E M A R 2 2 2 0 0 2 P A T E N T S H E E T U. S. P A T E N T O F F I C E</p> <p style="text-align: center;">INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i></p>			COMPLETE IF KNOWN	
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5 of 6		Attorney Docket No.	337348021US	
DQ	FRANZINI et al., "Reversal of thalamic hand syndrome by long-term motor cortex stimulation," <i>Journal of Neurosurgery</i> 93:873-875 (2000)			
DR	WALKER-BATSON et al., "Amphetamine Paired With Physical Therapy Accelerates Motor Recovery After Stroke," <i>Stroke</i> , Vol. 26, No. 12, pp. 2254-2259 (1995)			
DS	NETZ et al., "Reorganization of motor output in the non-affected hemisphere after stroke," <i>Brain</i> , 120, pp. 1579-1586 (1997)			
DT	SANES, "The Relation between Human Brain Activity and Hand Movements," <i>NeuroImage</i> 11, pp. 370-374 (2000)			
DU	SANES, J. and DONOGHUE, J.P., "Plasticity and Primary Motor Cortex," <i>Annual Review of Neuroscience</i> 23:393-415 (2000)			
DV	SANDKÜHLER, "Learning and memory in pain pathways," <i>Pain</i> 88, pp. 113-118 (2000)			
DW	DAM et al., "Effects of Fluoxetine and Maprotiline on Functional Recovery in Poststroke Hemiplegic Patients Undergoing Rehabilitation Therapy," <i>Stroke</i> , Vol. 27, No. 7, pp. 1211-1214 (July 1996)			
DX	BEL, S. and BAUER, B.L., "Dorsal Column Stimulation (DCS): Cost to Benefit Analysis," <i>Acta Neurochirurgica</i> , Suppl. 52, pp. 121-123 (1991)			
DY	KOPELL et al., "The Continuing Evolution of Psychiatric Neurosurgery," <i>CNS Spectrums</i> , Vol. 5, No. 10, pp. 20-31 (October 2000)			
DZ	REZAI, "Neurostimulation," <i>Neurological Research</i> , Vol. 22, No. 3 pp. 235-273 (April 2000)			
EA	TURTON et al., "Contralateral and ipsilateral EMG responses to transcranial magnetic stimulation during recovery of arm and hand function after stroke," <i>Electroencephalography and Clinical Neurophysiology</i> 101 pp. 316-328 (1996)			
EB	BÜTEFISCH et al., "Mechanisms of use-dependent plasticity in the human motor cortex," <i>Proc. Natl. Acad. Sci. USA</i> , Vol. 97, No. 7, pp. 3661-3665 (March 2000)			
EC	VAN DER LEE et al., "The Intra- and Interrater Reliability of the Action Research Arm Test: A Practical Test of Upper Extremity Function in Patients With Stroke," <i>Arch. Phys. Med. Rehabil.</i> , Vol. 82 pp. 14-19 (January 2001)			
ED	KAUHANEN et al., "Domains and Determinants of Quality of Life After Stroke Caused by Brain Infarction," <i>Arch. Phys. Med. Rehabil.</i> , Vol. 81, pp. 1541-1546 (December 2000)			
EE	ZIEMANN et al., "Modulation of Plasticity in Human Motor Cortex after Forearm Ischemic Nerve Block," <i>The Journal of Neuroscience</i> 18(3):1115-1123 (February 1998)			
EF	ROUX et al., "Chronic Motor Cortex Stimulation for Phantom Limb Pain: A Functional Magnetic Resonance Imaging Study: Technical Cast Report," <i>Neurosurgery</i> , Vol. 49, No. 3 (March 2001)			

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PTO/SB/08A

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Sheet 6 of 6				Attorney Docket No. 337348021US							
R.B.	EG	COHEN et al., "Studies of Neuroplasticity With Transcranial Magnetic Stimulation," The Journal of Clinical Neurophysiology, Vol. 15, No. 4 (1998)									
	EH	SHIMIZU et al., "Therapeutic efficacy of transcranial magnetic stimulation for hereditary spinocerebellar degeneration," Tohoku Journal of Experimental Medicine, 189(3):203-11 (November 1999)									
	EI	LIEPERT et al., "Treatment-Induced Cortical Reorganization After Stroke in Humans," Stroke, 31:1210-1216 (2000)									
	EJ	SCHIFF et al., "A neuromodulation strategy for rational therapy of complex brain injury states," Neurological Research, Vol. 22 pp. 267-272 (April 2000)									
	EK	GLADSTONE et al., "Enhancing Recovery after Stroke with Noradrenergic Pharmacotherapy: A New Frontier?," Can J. Neurol. Sci., Vol. 27, No. 2 (May 2000)									
	EL	PASCUAL-LEONE et al., "Study and Modulation of Human Cortical Excitability With Transcranial Magnetic Stimulation," Journal of Clinical Neurophysiology, Vol. 15, No. 4 (1998)									
	EM	PASCUAL-LEONE et al., "Transcranial magnetic stimulation and neuroplasticity," Neurophycologia 37, pp. 207-217 (1999)									
	EN	STEFAN et al., "Induction of plasticity in the human motor cortex by paired associative stimulation," Brain, 123, pp. 572-584 (2000)									
EXAMINER <i>R. Barker</i>				DATE CONSIDERED <i>6/2/04</i>							

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